# SUSSEX COUNTY

#### REFERENCE TIDE GAUGE - LEWES (BREAKWATER HARBOR)

The Lewes tide gauge is located on the bay side of Cape Henlopen in Breakwater Harbor.

## Delaware Bay

For the Delaware Bay shoreline in Sussex County, high tides occur about 25 minutes later at the Mispillion River (the north end of the county) than at the Lewes gauge. Low tides occur around 50 minutes later.

## **Oceanfront**

The high and low tides on the oceanfront occur up to around 1 hour earlier than the high and low tides at the Lewes gauge.

## Back bays

The back bays of Sussex County are Rehoboth Bay and Indian River Bay (both of which drain through the narrow Indian River Inlet), and Little Bay and Little Assawoman Bay (both of which drain into Maryland's Assawoman Bay to the south).

High tides on the back bays of Sussex County occur up to about  $2\frac{1}{2}$  hours later than the high tides at the Lewes gauge. Low tides occur up to about 3 hours later.

The back bays present a problem during prolonged periods of onshore flow. For each successive tide cycle that the back bays are not allowed to drain, the water levels increase.

# Data Acquisition

In order to access data from the Lewes gauge, use the National Ocean Service web site at <a href="http://tidesonline.nos.noaa.gov/">http://tidesonline.nos.noaa.gov/</a>.

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The tide heights from actual events referenced in the following table are those that were verified by the National Ocean Service. They may vary slightly from figures found in other National Weather Service publications.

In the table an asterisk (\*) indicates that location experiences back bay type flooding. Being that the reference gauge is on Delaware Bay, the tide level associated with that particular location may vary somewhat from event to event based on the number of tide cycles during which there is an onshore flow.

THE PERIOD OF RECORD FOR THE LEWES GAUGE BEGINS IN FEBRUARY 1919. PLEASE NOTE THAT THERE ARE GAPS WITHIN THE PERIOD OF RECORD DUE TO EQUIPMENT OUTAGES AND/OR DATA AVAILABILITY.

### ALL HEIGHTS ARE IN MEAN LOWER LOW WATER (MLLW).

- 9.2 FT March 6, 1962.
- 8.8 FT January 4, 1992.
- 8.7 FT October 29, 2012 (Post Tropical Cyclone Sandy).
- 8.6 FT January 28, 1998.
- 8.5 FT February 5, 1998.
- 8.0 FT MAJOR TIDAL FLOODING BEGINS. September 27, 1985 (Hurricane Gloria) / March 3, 1994 / August 27, 2011 (Hurricane Irene).
- 7.9 FT October 25, 1980 / March 29, 1984.
- 7.8 FT December 12, 1992 / January 7, 1996 / November 13, 2009.
- 7.7 FT May 12, 2008 / October 29, 2011.
- 7.6 FT October 14, 1977 / February 17, 2003.
- 7.5 FT October 31, 1991.
- 7.4 FT September 18, 1936 (Hurricane) / December 22, 1972 / January 2, 1987 / November 14, 1997 / January 25, 2000 / October 7, 2006.
- 7.3 FT December 9, 1973 / October 8, 1996 / October 17, 2009 / June 4, 2012 / March 6, 2013.
- 7.2 FT September 25, 1992 (Tropical Storm Danielle) / May 25, 2005.
- 7.1 FT January 31, 2006 / December 19, 2009.
- 7.0 FT MODERATE TIDAL FLOODING BEGINS.

November 1, 1947 / February 26, 1979 / November 15, 1981 / December 2, 1986 / October 19, 1989 / January 3, 2003.

6.9 FT — Flooding occurs in Milford along the Mispillion River.

Flooding begins in Broadkill Beach, including DE Route 16.

Flooding occurs in Rehoboth Beach along Surf Avenue and along the Boardwalk.

Flooding occurs in Millsboro.

- 6.7 FT Flooding occurs along Sussex County Route 360 and Salt Pond Road\* (both are just north of Bethany Beach).
- 6.5 FT Flooding begins around the Mispillion Light.

Flooding begins in Slaughter Beach.

Flooding begins in Primehook Beach.

Flooding occurs along Cedar Street in Lewes.

Flooding occurs along US Route 9 in Lewes in the vicinity of the Lewes and Rehoboth Canal.

Flooding begins in Oak Orchard, including Sussex County Route 312\*.

Flooding begins in Long Neck, including DE Route 23\*.

- 6.3 FT Flooding occurs at Old Landing on Rehoboth Bay\*.
  - Flooding occurs along sections of DE Route 1 between Dewey Beach and Bethany Beach, including the Delaware Seashore State Park\*.

Flooding begins in Dewey Beach\*, Bethany Beach and South Bethany\*.

Flooding begins in Fenwick Island\*, including DE Route 54.

#### 6.0 FT — MINOR TIDAL FLOODING BEGINS.

- -1.8 FT BLOWOUT TIDE.
- -2.8 FT March 7, 1939 / March 18, 1976 / October 26, 1980.
- -2.9 FT March 28, 1919 / February 9, 1958 / February 8, 1959 / February 22, 1959.
- -3.0 FT December 8, 1939 / March 5, 1954 / December 22, 1976 / January 11, 1977 / December 10, 1977.
- -3.1 FT January 25, 1939 / November 30, 1958.
- -3.2 FT January 6, 1959 / March 16, 1980.
- -3.4 FT January 28, 1971.
- -4.2 FT January 10, 1978.